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Milford K.Smith, Jr.
Vice President / Engineering

August 5, 2009

Ex Parte Presentation
Via Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Dear Ms. Dortch:

Milford K. Smith, Jr. and Paul Shulins, employees of Greater Media, Inc. ("Greater Media"),[1] hereby respond to several egregiously distorted or fallacious statements made by Rhode Island Public Radio ("RIPR")[2] in Reply Comments it filed in this proceeding.[3] Those Reply Comments, which purport to establish that "WRNI-FM's listeners have ... been negatively affected by increased IBOC power levels,"[4] mischaracterize key facts regarding such alleged interference to station WRNI's analog service and totally misconstrue the nature and extent of Greater Media's and iBiquity Digital Corporation's ("iBiquity")[5] participation in elevated digital power tests conducted with RIPR and NPR in May 2009.

RIPR's Reply Comments state that in January 2009, WRNI received complaints from "employees and listeners" that the station's analog signal was receiving interference, with "some" of the complaints purportedly coming from locations inside the station's protected contour.[6] RIPR exclusively relies on the Declaration of its Director of Engineering, Steven J. Callahan, as support for this assertion.[7] Callahan's Declaration states that, on the same day he

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[1] Greater Media is the ultimate parent of Charles River Broadcasting Company, the licensee of station WKLB-FM (Fac. ID No. 10542), Waltham, Massachusetts ("WKLB"), and is licensed to operate numerous other broadcast stations in several markets. Milford "Smitty" Smith is the Vice President, Radio Engineering, Greater Media and Paul Shulins is the Director of Technical Operations, Greater Media Boston. The credentials of Messrs. Smith and Shulins are a matter of record at the FCC.

[2] RIPR is the licensee of station WRNI-FM (Fac. ID No. 22874), Narragansett Pier, Rhode Island ("WRNI").

[3] *Reply Comments of Rhode Island Public Radio*, MM Docket 99-325, filed July 17, 2009 ("Reply Comments").

[4] *Id.* at 1.

[5] iBiquity is the developer and licensor of HD Radio technology.

[6] Reply Comments at 3.

[7] *See* Declaration of Steven J. Callahan, attached to Reply Comments. It should be noted that Mr. Callahan is a former Greater Media employee who resigned in 1997. Following his resignation, Mr. Callahan and Greater Media were involved in a Small Claims dispute that was ultimately settled out of court.

"discovered a white noise" affecting reception of WRNI while commuting to work (but in a location Callahan concedes was outside the WRNI 60 dBu protected contour), three other "listeners" complained of interference allegedly attributable to WKLB's operation at increased digital power levels.[8] Those other "listeners" were hardly disinterested individuals; rather, they were RIPR's Chair, RIPR's legal counsel, and a WRNI employee.[9] In fact, the Callahan Declaration cites to no complaints by truly independent listeners, and four of the five locations at which interference was alleged to exist by the four RIPR employees were well outside WRNI's protected contour; thus, contrary to Callahan's Declaration, the fact is that only one, not "some," of the interference complaints "came from within the WRNI 60 dBu protected contour".[10]

Moreover, the lone complaint from a location within the WRNI protected contour is simply not credible. Proving otherwise, Comstudy interference prediction software definitively shows that WRNI's field intensity is so much greater than WLKB's at that location that WRNI's analog service could not receive any digital interference at the desired to undesired field intensity ratio unless it was not operating at its licensed parameters. See Exhibit A. Greater Media's actual observations at this location confirmed this conclusion.

The timing of the WRNI complaints is also suspect. In this regard, on January 12, 2009, Joint Commenters in this proceeding proposed that broadcast stations in the non-reserved FM band be permitted to increase digital power by up to 10 dB, while temporarily maintaining current FM digital power levels for stations in the reserved band, a proposal opposed by NPR, in part on the theory that some non-commercial stations operate in the non-reserved band.[11] Non-commercial WRNI, coincidentally, is one of those facilities which operates in the non-reserved band. The purported interference to WRNI was "discovered" by the four RIPR employees and reported to Greater Media within days of the Joint Commenters' January 12, 2009 bifurcation proposal, even though WKLB initiated digital operation at -10 dBc more than a month before, on December 10, 2008.[12]

RIPR's Reply Comments theorize that because Greater Media could not duplicate the only interference condition that had been alleged within WRNI's protected contour, Greater Media believed it had "effectively neutralized" WRNI's opposition to the digital power increase.[13] RIPR's contention is demonstrably incorrect. In fact, as RIPR was well aware,

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[8] *See* Declaration.

[9] *Id.*

[10] Reply Comments at 3.

[11] *Reply Comments of Joint Commenters*, MM Docket 99-325, filed January 12, 2009, at 3.

[12] With the exception of the period December 13 – 14, 2008 and five hours on December 22, 2008, WKLB operated at -10 dBc continuously from December 10, 2008 through the end of January 2009.

[13] *Id.*

Greater Media's observations were not limited to the sole location within WRNI's protected contour. Instead, Greater Media's engineering staff made careful observations at every "interference" location identified by WRNI – as well as at four additional locations along WRNI's protected contour in the area nearest WKLB's transmitter location – and found no cognizable interference at any of the nine locations studied.

Greater Media provided RIPR with a detailed report of its observations at each of the nine locations and offered to "meet with you at your convenience to discuss these findings if you feel that such discussions would be helpful."[14] Greater Media reasonably assumed that if WRNI continued to believe it was subject to impermissible interference from WKLB, notwithstanding Greater Media's demonstration to the contrary, WRNI would certainly make its views known. However, no principal of RIPR, WRNI, Mr. Callahan or their counsel ever contacted Greater Media or its representatives.

Mr. Callahan next contends that a statement made by Paul Shulins to the effect that WKLB would operate at elevated digital power levels only during testing was somehow a "remarkable admission" that higher digital power would create analog interference.[15] No such admission can fairly be imputed, and the reason for Mr. Shulins' statement was much more benign. Mr. Shulins was simply trying to be an accommodating broadcaster, offering to operate WKLB at elevated digital power levels on a limited basis until Greater Media had the opportunity to investigate WRNI's interference claims. Mr. Callahan's effort to ascribe a nefarious interpretation to one statement of Mr. Shulins thus falls flat.

RIPR goes on to insinuate that Greater Media has attempted to withhold information from the FCC about WRNI's complaints, noting that the complaints and subsequent investigation were not mentioned in the experimental test report filed by Greater Media and iBiquity on July 6, 2009.[16] This suggestion of concealment is also off the mark. In fact, Greater Media fully disclosed the WRNI complaints to the FCC, as well as Greater Media's investigative report, two months earlier, on May 5, 2009 as part of WKLB's request to extend its experimental authority.[17]

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[14] *See* Letter dated February 27, 2009 from Steven A. Lerman and John D. Poutasse, counsel to Greater Media, to John Wells King, counsel to RIPR, attached as Exhibit B.

[15] *See* Reply Comments at fn. 2, citing Declaration at 2.

[16] *See* Reply Comments at 4.

[17] A copy of the letter, including this disclosure, is attached as Exhibit B. RIPR also claims that an interim report filed by Greater Media is not publicly available. That report, first filed with the Commission on May 5, 2009, was later filed in this proceeding on July 6, 2009 when the Joint Commenters attached the report as Exhibit A to their Comments.

In addition to RIPR's false claims regarding the January 2009 WRNI interference allegations and subsequent investigation thereof, RIPR misrepresents the nature and extent of Greater Media's and iBiquity's contributions to the further digital power tests involving WKLB and WRNI conducted in May 2009 in collaboration with NPR.

For example, Mr. Callahan charges that Greater Media and iBiquity "came on the scene and insinuated themselves into the [May 2009] testing and evaluation of the reception conditions in all of the measurements."[18] The fact of the matter is that Greater Media and iBiquity engineers were invited to actively participate in these tests by NPR as members of NPR's Core Working Group.[19] As early as April 24, 2009, John Kean of NPR was communicating with Greater Media and iBiquity to select dates for the May testing, which was followed by several email exchanges between NPR, Greater Media, and iBiquity focusing on the test procedures. In other words, Greater Media and iBiquity clearly did not "insinuate" themselves into the tests; rather, they were integral and indispensible to the testing and had been invited to participate in an official capacity.[20]

In addition, significant costs were incurred by Greater Media and iBiquity in participating in these tests. For example, Greater Media supplied the digital test station and three engineers for a period of nearly two weeks at a cost of many thousands of dollars. iBiquity supplied an engineer and a test vehicle with instrumentation that identified technical malfunctions in WRNI's operation, as well as significant propagation anomalies, including tropospheric ducting, which properly invalidated the data from one night of testing.

The dialogue between NPR, Greater Media, and iBiquity throughout the testing was constructive and, as reflected by emails, appreciated by NPR. For example, NPR's John Kean subsequently emailed Milford Smith, stating "[i]t was a pleasure working with you and Paul [Shulins] last week on the WRNI tests! You made the tests go quite smoothly, and happily, faster!" NPR's expression of gratitude hardly squares with RIPR's negative characterization of Greater Media and iBiquity as subversive forces.

Mr. Callahan further claims that he overheard, via cellphone, "heated discussions" in the NPR vehicle, concluding that it "was apparent to me that the purpose of Greater Media's and

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[18] Reply Comments at 4, citing Declaration at 2.

[19] The Core Working Group, formed by NPR, consists of NPR Labs, iBiquity, The Corporation for Public Broadcasting, CBS Radio, Clear Channel Radio, Consumer Electronics Association, and Greater Media.

[20] Moreover, because an insufficient number of NPR staff were available at the test locations, one of Greater Media's engineers was recruited in advance of the tests to assist in the NPR vehicle, providing communication and coordination with the WRNI transmitter location and the iBiquity-provided test van.

iBiquity's presence was not to promote actual, real-world results, but instead to minimize any evidence of actual interference to the analog signal of a first adjacent station."[21]

These allegations are baseless. Mr. Callahan was at the WRNI transmitter site during the May 2009 tests. He was not present in the testing vehicle at any time. Only one Greater Media employee, Paul Shulins, was present in the NPR test vehicle in which the "heated discussions" supposedly occurred. But, contrary to Callahan's assertion, the discussions in the test vehicle involved logistical (e.g., assisting with directions during the driving tests and relaying pertinent technical data from the highly instrumented iBiquity test van which had an immediate and direct impact on the testing), and were entirely cordial and constructive.

RIPR also refers to "the protest of iBiquity and Greater Media" to WRNI's operation in stereo mode during the May 2009 tests as evidence of their desire to undermine the test results.[22] Greater Media and iBiquity took the very reasonable position that monophonic operation by WRNI was appropriate because that is the mode in which the station normally operates. Indeed, NPR had to install additional equipment at WRNI to enable it to broadcast in stereo. Modifying a test station's fundamental operating mode with newly installed, uncalibrated equipment unnecessarily introduces the potential for testing errors. In fact, the additional equipment to facilitate stereo operation was improperly installed by WRNI, necessitating that the procedures be repeated.

Although NPR indicates it intends to use the stereophonic audio recordings of WRNI to assess whether WKLB's elevated digital operation interferes with WRNI's normal operation,[23] comparing the May 2009 test results to WRNI's normal operation in monophonic mode is logically and scientifically inappropriate. Test recordings of stereophonic broadcasts, with temporarily installed equipment to permit such non-routine operation, cannot appropriately be used as a benchmark for comparison to the impact, if any, of WKLB's digital operation on WRNI's monophonic, real-world transmissions.

RIPR's Reply Comments conclude that the May 2009 test results "document audible impairment of the WRNI signal at the higher power levels at those locations measured."[24] This unqualified statement is, at best, anticipatory because the raw test data collected has not been evaluated pursuant to the test procedure. Specifically, two types of data were collected during the May 2009 tests – signal strength data and audio recordings of WRNI as a victim station. The signal strength data collected during the May tests was not designed to determine whether

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[21] *Id.*

[22] *Id.* at fn. 5.

[23] NPR Reply Comments at fn. 21.

[24] Reply Comments at 6.

testing, had not been released, nor had the audio impairment testing been conducted at the time RIPR filed its Reply Comments. Accordingly, it seems that RIPR based its pronouncement of "documented" audio impairment on either audio test data that has neither been evaluated nor released, or on irrelevant signal measurement data.

Greater Media supports digital testing and continued dialog with NPR and other parties to insure that digital radio continues to be rolled out properly, with due regard for the protection of analog operation. However, allegations and innuendo that have no factual underpinning not only undermine the integrity of the FCC's processes, they impair the ability of the participants in this debate to cooperate in a good faith effort to develop a solid factual record. For these reasons, the undersigned believe it is important to correct the record by means of this letter.

Respectfully submitted,

Milford K. Smith, Jr.
Vice President, Radio Engineering
Greater Media, Inc.

Paul Shulins
Director of Technical Operations
Greater Media Boston

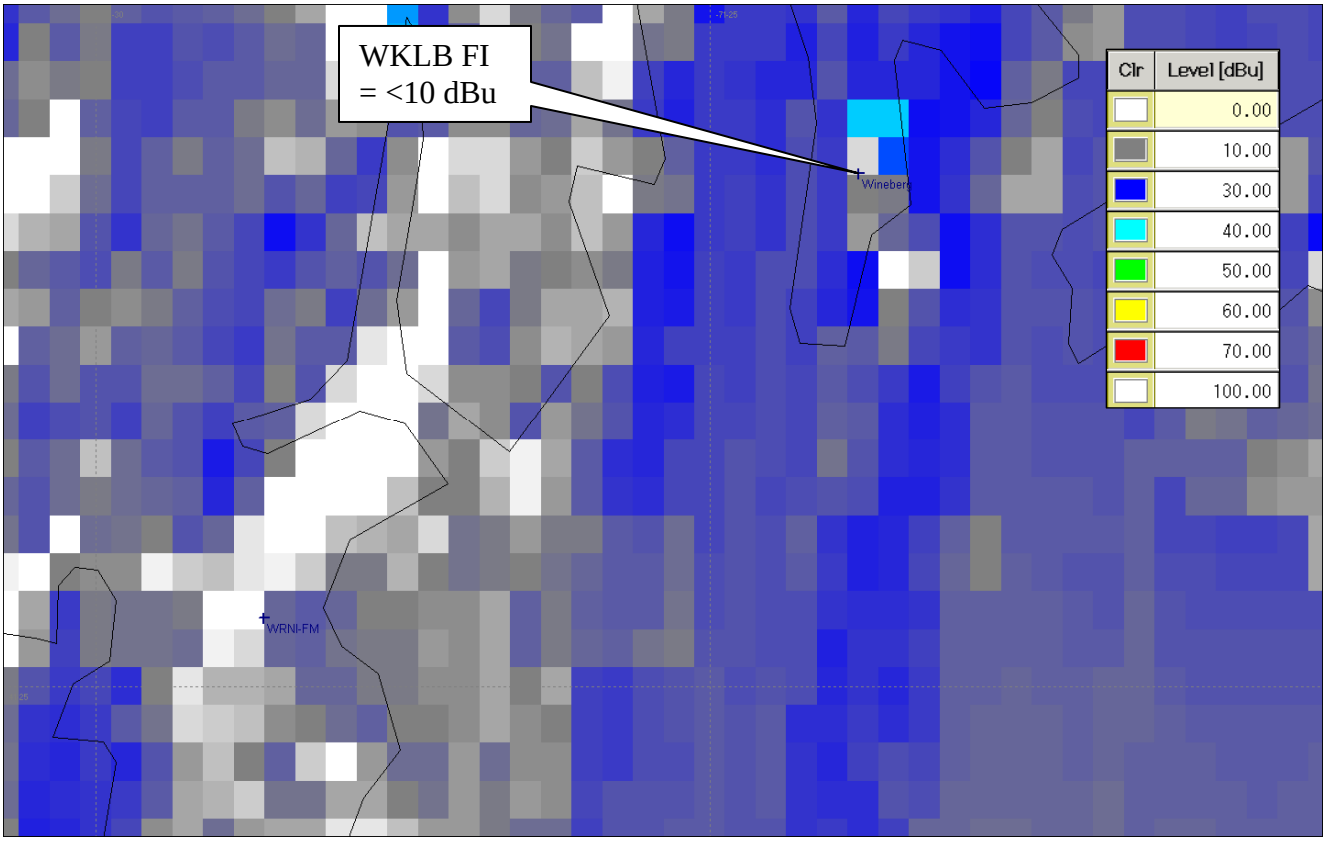
cc: *(via electronic mail)*

Peter Doyle
James Bradshaw
Steven Broeckaert
Susan Crawford
Ann Gallagher
Tom Hutton
Charles (Norm) Miller
Mary Beth Murphy
Brendan Murray

Exhibit A

Field Intensities at Donald Wineberg House

354 Beavertail Rd, Jamestown, RI
41° 28’ 23.06” / -71° 23’ 47.19”
WKLB Field Intensity (Longley Rice 90/90)



WRNI Field Intensity (Longley Rice 90/90)

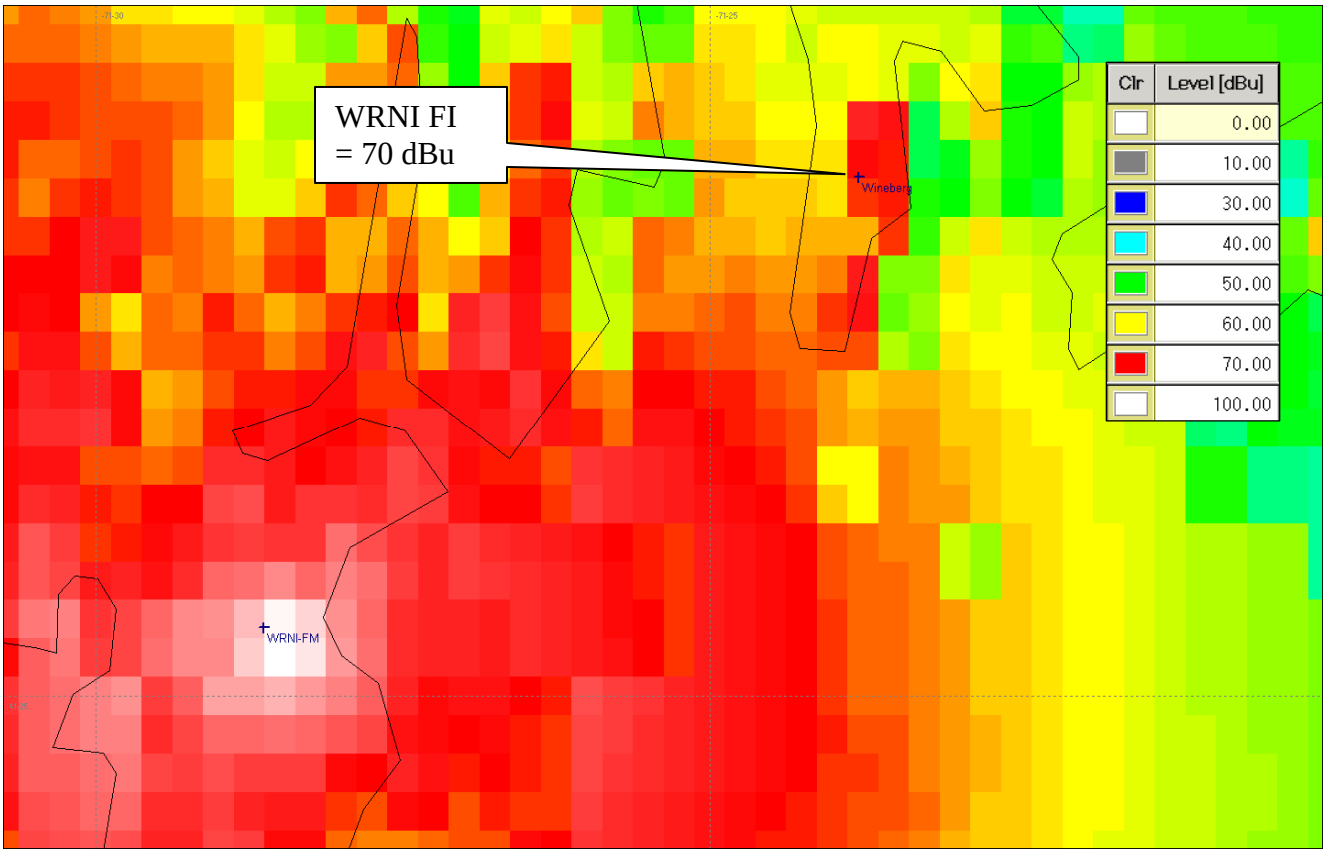


Exhibit B

RETURN

LERMAN SENTER PLLC

WASHINGTON, DC

JOHN D. POUTASSE
202.416.6774
202.429-4614 FAX
JPOUTASSE@LERMANSENTER.COM

May 5, 2009

Via Hand Delivery

FILED/ACCEPTED

MAY - 5 2009

Federal Communications Commission
Office of the Secretary

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
Attn: Audio Division, Media Bureau

Re: Request for Extension of Experimental Authorization
Station WKLB-FM, Waltham, Massachusetts
FCC File No. -20081031ACO

Dear Ms. Dortch:

Charles River Broadcasting Company ("Charles River"), the licensee Station WKLB-FM, Waltham, Massachusetts, by its attorneys, hereby requests a six month extension of its experimental authorization dated December 4, 2008 to operate WKLB-FM with IBOC power levels above the currently permitted value of -20 dB relative to analog power. *See* FCC File No. - 20081031ACO. Charles River is an indirect, wholly-owned subsidiary of Greater Media, Inc. ("Greater Media").

In accordance with the requirements of WKLB-FM's experimental authorization, attached hereto is an interim report that details the progress of WKLB-FM's experimental operations. This interim report is based on the observations of Mr. Paul Shulins, WKLB-FM's chief engineer and the director of technical operations at Greater Media's Boston area stations. Mr. Shulins is a highly experienced broadcast engineer who has authored several published papers on IBOC implementation and coverage issues that have been presented during Broadcast Engineering Conferences at several National Association of Broadcasters' conventions.

There were no unresolved complaints of interference from any adjacent channel stations relating to WKLB-FM's experimental operations. However, Charles River notes that it received one informal complaint of interference from Station WRNI-FM, Narragansett Pier, Rhode Island, which is licensed to Rhode Island Public Radio ("RIPR"). WRNI-FM is a noncommercial Class A station that operates from the first upper adjacent channel to WKLB-FM at 102.9 MHz. WRNI-FM is short-spaced to WKLB-FM pursuant to Section 73.215 and operates with sub-Class A maximum facilities of 1.95 kW at 69 meters HAAT. Charles River promptly and thoroughly investigated WRNI-FM's informal complaint and determined that there was no cognizable interference to WRNI-FM within the station's protected contour. Charles River delivered a report of the results of this investigation to RIPR's FCC counsel on February 27,

2009. To date, Charles River has not received any response from RIPR concerning the results of this interference investigation and believes that the issue has been resolved.

Charles River has scheduled a new series of tests involving WKLB-FM in cooperation with iBiquity Digital Corporation, NPR Labs, CBS Radio and Clear Channel Communications in order to examine the validity of the NPR advanced alternative propagation model (as detailed in the NPR Labs DRCIA report). Charles River hopes that the results of this new series of tests will contribute to reaching an industry-wide consensus concerning recommended elevated HD power levels for FM stations generally. This testing is scheduled to commence during the week of May 4, 2009. WKLB-FM is an ideal candidate to conduct these tests. The WKLB-FM facility is nearly unique in the industry because it utilizes a new, extremely high performance dual feed panel antenna in conjunction with main and redundant digital transmitter capability that readily enables -10 dBc power levels to be achieved by what might be considered to be the most optimum transmission system configuration available.

For the reasons set forth herein, Charles River respectfully requests a six month extension of WKLB-FM's experimental authority to operate with IBOC power levels above the currently permitted value of -20 dB relative to analog power.

Please date-stamp the enclosed "Return Copy" of this request and return it to the courier delivering the package.

Should there be any questions concerning this matter, please contact the undersigned.

Respectfully submitted,

John D. Poutasse

Enclosure

cc: Ann Gallagher, Audio Division, Media Bureau

Interim Report
Station WKLB-FM, Waltham, Massachusetts
Experimental Operations with IBOC Power Levels
Above the Currently Permitted Value Of -20 dB Relative to Analog Power

May 5, 2009

WKLB-FM's HD Radio power levels ranged from the licensed 20 dBc up to an including -10 dBc. Observations were made qualitatively with a Kenwood HD Car Radio (Model HDR-100) installed in a 2004 Toyota Avalon with a factory installed in-glass antenna, and in a 2001 Toyota 4-Runner with a factory installed metal rod antenna. For most of these observations, the radio mode of "forced digital only reception" was selected. Observations were made as the various routes were driven, noting the areas and frequency of audio muting that occurred by virtue of the loss of the bit stream to the radio.

Quantitative observations are still being made using the same two vehicles and radios while feeding a "good or bad" status into a laptop computer data collection program; such data is based on the "blend to analog" status of the radio. A signal that has not blended to analog is presumed to be in an area of good reception and a signal that has blended to analog is presumed to be in an area of poor reception. This data, along with simultaneous GPS coordinates, are recorded in a text file on the laptop, and will be overlaid on a commercially available street mapping program to produce a map showing the coverage areas.

During December 2008, observations were made at the -10dbc power level. From the authorized site, the licensed WKLB-FM analog ERP is 12,000 watts. Thus, the IBOC test signal level is 1200 watts ERP for a -10 dBc offset. Extensive driving evaluations, both qualitative and quantitative, showed remarkable improvement in coverage relative to the currently authorized level of -20 dBc. In general, it was observed that the -10 dBc digital signal level approximates or, in some cases, slightly exceeds the coverage of WKLB-FM's full power analog signal.

Particular care was taken to observe improvements in coverage in areas within 25 miles of the station's transmitter site. At the -20 dBc digital power level, there were numerous areas where the digital signal would routinely and predictably fade out due to terrain and manmade obstacles (by terrain, we are referring to gentle rolling hills and valleys in rural areas outside the City of Boston). During the several months of observations, it was apparent that *all* of these problems disappeared while operating at -10dbc. There were no instances where the signal was lost in either vehicle in any areas where the signal loss was determined to be a problem at the -20 dBc level. When the IBOC transmit power was reduced to -15dbc, there were significant signal losses that resurfaced in those areas, despite the fact that the -15 dBc power level was considerably in excess of the normal -20dBc digital power level; the coverage seemed to be significantly worse (than at -10 dBc) at the -15dbc level even in areas within 25 miles of the transmitter location. To date, no specific tests have been performed at any levels

between -10 dBc and -15 dBc. Charles River intends to perform these tests in order to obtain more granularity if its request for an extension of WKLB-FM's experimental authority is granted.

In terms of the limits of coverage, a particularly rigorous study was conducted with regard to interstate Route I-495, a highway loop that extends in an arc about 20 miles north, west and south of the City of Boston. At -20 dBc digital power levels, this extremely heavily traveled major beltway is generally served poorly by any Boston IBOC station, sited at either the Prudential Tower building (7 class B FM's) or at the so called Needham/Newton antenna farm (most of the remaining class B stations). At the -20 dBc level, most stations are listenable in the digital mode only approximately 50% of the time while traveling this highway. Generally speaking, Charles River observed better than 75% coverage at the -15 dBc level and better than 95% coverage at the -10dbc level.

Observations also were made while driving on interstate highway I-93, from the City of Boston northerly into New Hampshire. Like I-495, I-93 is an extremely heavily traveled commuter route. At the -20 dBc digital power level, signal breakup commences around Andover, Massachusetts, where interstate I-495 crosses interstate I-93. The signal then improves as the terrain rises slightly approaching the New Hampshire border. From the border northward, the signal deteriorates rapidly. At New Hampshire Exit 3, the digital signal is audible only approximately 50% of the time; any HD-2 or HD-3 signals would be deemed to be unlistenable. After passing Exit 4, the signal is present less than 10% of the time.

Traveling this same route at the -10 dBc level, the signal was virtually seamless well past Exit 15 near Concord NH (nearly 60 miles north of the transmitter), with only a few minor momentary drops between Exit 4 and Exit 15. In this same area, the analog signal became increasingly scratchy and was totally unlistenable for short periods of time. The digital signal was listenable nearly 95% of the time as far as the xit for New Hampshire 20 near Tilton, New Hampshire. This represents slightly better coverage range than the station's analog signal.

Traveling this same route while operating at a -15 dBc level produced a signal that was audible (50% listenability) only to Exit 10, just south of Concord, New Hampshire. This represents a notably abbreviated coverage range as compared to the analog signal.

Due to time constraints, observations have not yet been made to compare building penetration at various IBOC levels. However, Charles River has developed a plan to perform those observations, which will be implemented if the request for extension of the WKLB-FM experimental authority is granted.

In general, Charles River intends to continue to perform these types of observations at several additional levels between -10 dBc and -15 dBc to obtain a better idea of how much each decibel of increased power translates into actual real world improvements in signal coverage. In addition, Charles River intends to chart the results of

these observations and to make those maps available to the FCC. Finally, Charles River hopes to document reception results for table and other portable radios located inside buildings to see how building penetration is impacted by various IBOC transmission levels.

Based on the previously detailed testing performed by Charles River during the initial term of the WKLB-FM experimental authorization, it does not appear that a digital power increase to -15 dBc – the primary intermediate power level tested to date – will be sufficient to overcome the current digital v. analog coverage disparity and achieve the critical parity of coverage between the two services. Additional testing at more granular powers levels between -15 dBc and -10 dBc is essential to formulating a sound and effective solution to the current coverage disparity that, very literally, threatens the success of a digital radio service in the United States.

Milford K. Smith, Jr.
VP Radio Engineering
Greater Media, Inc.

Paul Shulins
Director of Technical Operations
Greater Media Boston